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**ANNUAL REPORT**  
OF THE  
**Department of Public Works**  
OF THE  
**PROVINCE OF ALBERTA**  
**1956 - 57**

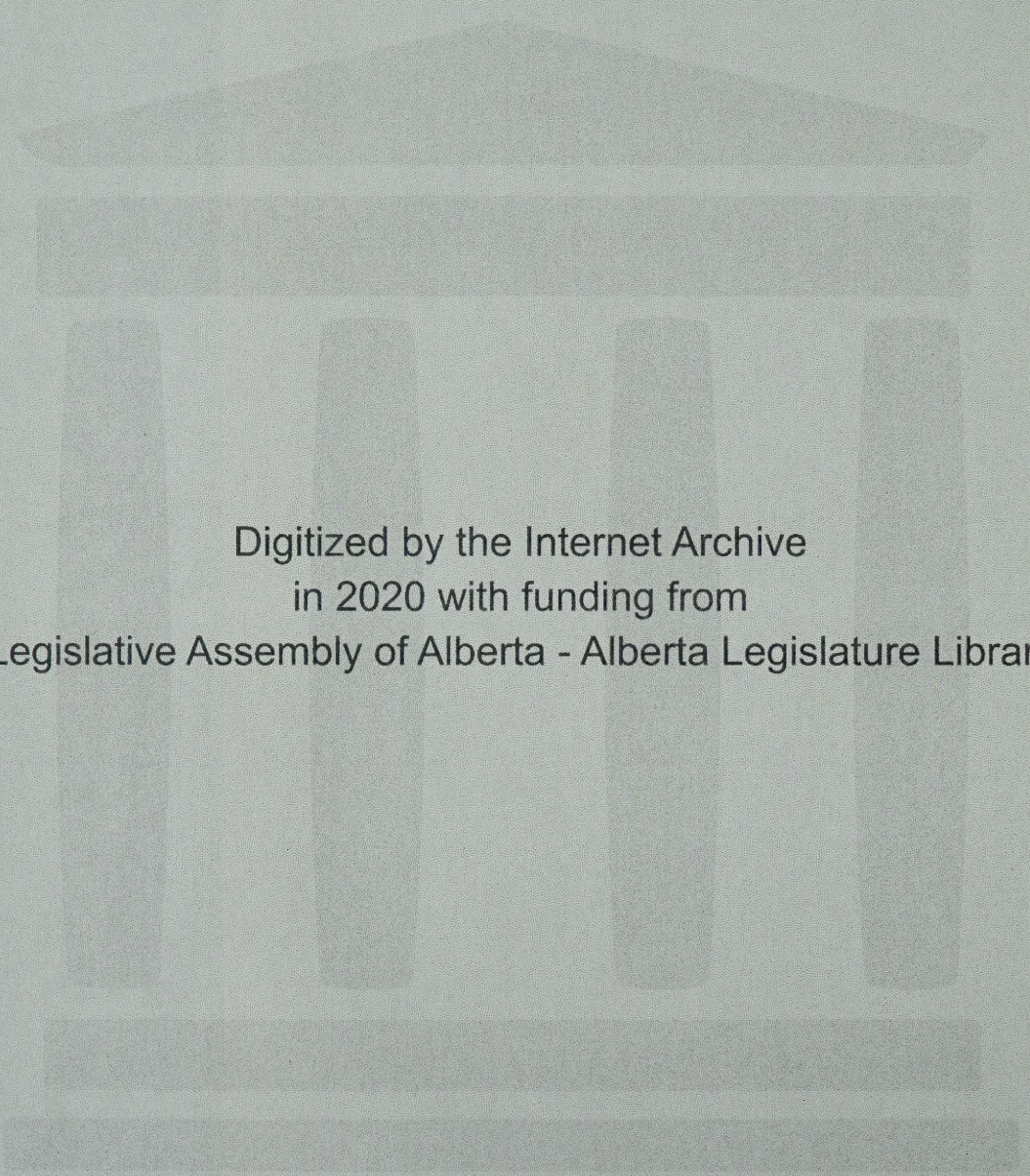
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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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EDMONTON:  
Printed by L. S. WALL, Queen's Printer.  
1958





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ANNUAL REPORT

OF THE

BOARD OF AGENCIES

FOR THE YEAR

Edmonton, September 1, 1957.

To His Honour,

J. J. BOWLEN,  
Lieutenant Governor of the  
Province of Alberta.

Sir,

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ended March 31st, 1957.

Respectfully submitted,  
JAMES HARTLEY,  
Minister of Public Works.

**DEPARTMENT OF PUBLIC WORKS**

Edmonton, Alberta,  
September 1, 1957.

TO:

The Honourable James Hartley,  
Minister,  
Department of Public Works.

Sir:

I have the honour to submit herewith a report covering the activities of the Department of Public Works, for the fiscal year ended March 31, 1957.

An extensive programme of construction and maintenance was undertaken this past year, the details of which are contained in the attached report. Photographs have been included in the report to illustrate the types of buildings erected.

The Mechanical Branch, which is responsible for the operation and maintenance of the Power Plants and utility services at the larger Provincial Institutions, reports an increase in work over the previous year because of the continued growth of the Institutions.

In addition to the projects shown in the attached report, the Department of Public Works provided detailed planning and design on a large volume of work for the Alberta Government Telephones.

I would like to draw your attention, in this report, to the outstanding achievement of my staff in their work of designing, detailing and supervision of construction of the Provincial Auditoriums. This project was carried out in just under two and a half years, and I am very proud, not only of their personal efforts, but of the final results upon completion of the structures.

Respectfully submitted,

ARTHUR ARNOLD,

Deputy Minister of Public Works.

## **THE DEPARTMENT OF PUBLIC WORKS**

Details of maintenance and construction carried out in the fiscal year ended March 31st, 1957.

The Department of Public Works is responsible for the servicing and the maintenance of all Provincial Government owned buildings with the exception of various self-contained institutions, such as the University of Alberta, the Provincial Mental Hospital, Ponoka, and the Schools of Agriculture. The Department is also responsible for the plans, designs and the supervision of the construction of all Provincial Government buildings.

In addition to the work of constructing new buildings, the Department is required to maintain and service the buildings already built. The maintenance and servicing of these buildings needs the services of a large group of men of assorted technical skills. Carpenters, plumbers, electricians and other tradesmen keep these buildings in good repair. Gardeners maintain the surrounding grounds which are quite extensive at some points, notably, the Provincial Mental Institute, Oliver, and the Institute of Technology and Art, Calgary. Caretakers keep buildings clean, men operate the elevators and watchmen guard the buildings at night.

During this past year a number of buildings of contemporary design have been or are being constructed under the direction of this Department at the following points.



Construction work was carried out at the Provincial Institute of Technology and Art, Calgary. New electric panel wiring was carried out in the main building and considerable work was done on the installation of a steam heating system.

The Southern Alberta Jubilee Auditorium was completed this year. It is located on the South West corner of the site of the Institute of Technology and Art, on the North Hill overlooking the City of Calgary, and has been the major construction project of this Department in this area during the year. This building has been designed and engineered throughout its great complexity by the Department. The acoustics in the Auditorium are excellent and the building is fully air-conditioned for the comfort of the patrons. A very complex electrical installation has been provided for flexibility in the use of the main stage as well as all other areas. A complete description of the Provincial Auditoria in Edmonton and Calgary follows.

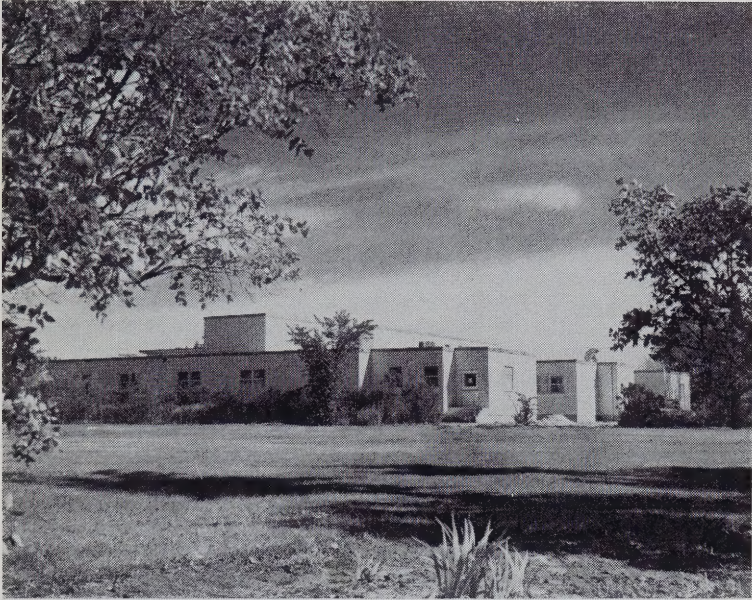
### **CAMROSE**

This year saw the completion of a new Infirmary Ward. At this institution a new transformer vault was installed and extensive work was done on roads, walks and landscaping.

### **CLARESHOLM**

At the Provincial Auxiliary Hospital work was commenced on a new ward at this institution. The building is of frame and stucco exterior. It is a one storey building with partial basement and will accommodate approximately 112 persons. This building should be completed within a year.





New Ward Building, Provincial Auxiliary Hospital, Claresholm

### **DRAYTON VALLEY**

One staff residence was constructed for the Oil Conservation Board here, as well as alterations executed for the R.C.M.P. to provide them with adequate accommodation.

### PROVINCIAL JUBILEE AUDITORIA

The Provincial Jubilee Auditoria located in Edmonton and Calgary, were completed and occupied this year. The design of the projects, including the acoustics, the award of contracts and supervision of construction was carried out entirely by the Architects, Engineers, Technical and Administrative personnel of the Department during the two and a half-year period, commencing 1954 through to completion and occupancy on April 28th of 1957. Beauty of decor and grace are the characteristics of these immense buildings and they rank with the most modern and functional buildings of their type on the North American Continent. These buildings were designed to commemorate the Fiftieth Anniversary of the Province and dedicated to those pioneers who formed Alberta.

Both Auditoria are similar in design and constructed for multiple uses such as cultural, educational, recreational and religious functions. Further, facilities are provided for exhibitions and other activities of organizations "representative of various communities and interests of Alberta Citizens".

The main facade, striking with its vertical column effect and large window areas, is a splendid addition to the architectural standards of the Province. Under the huge marquee one enters the building to find oneself in the spacious and richly finished foyer and main lobby, where at every turn the eye encounters the most impressive details of finishing.

In the main Auditorium, sidewalls are finished with walnut panels extending 50 feet high, forming the acoustical inner shell. These walls stretch back 152 feet from the 80 foot wide proscenium to the 160 foot width at the rear of the balconies.

The sloping ceiling and sidewalls give a true impression of immensity from the seating section; but for those on the stage, the Auditorium appears to be small and intimate giving the feeling of unity with the audience by performing artists. The rear wall of the Auditorium is of a unique finish, with specially designed wood ribs holding in place carpeting having a complex acoustical design.

The first and second balconies are accessible from the thick carpeted, walnut and marble finished promenades. The seating capacity of stalls is 1268, the first balcony 825, and the second balcony 657.

The stage tower is 102 feet to the roof. The stage itself is one of the largest on this Continent. It contains facilities for staging many types of productions, from Grand Opera, Symphony Orchestra, Movies, Drama, to solo performances, etc. It is 120 feet wide and 40 feet deep. This can be increased an extra 20 feet by using the covered orchestra pit. Behind and below the stage are a multitude of rooms and accommodations, dressing rooms, workshops, scenery docks, storage rooms, etc.

The Orchestra pit is located under the stage apron. It is designed to accommodate up to 75 musicians. A large rehearsal stage identical in size with the acting area of the main stage is situated above the dressing room wing. There are also sound insulated practice rooms for soloists.



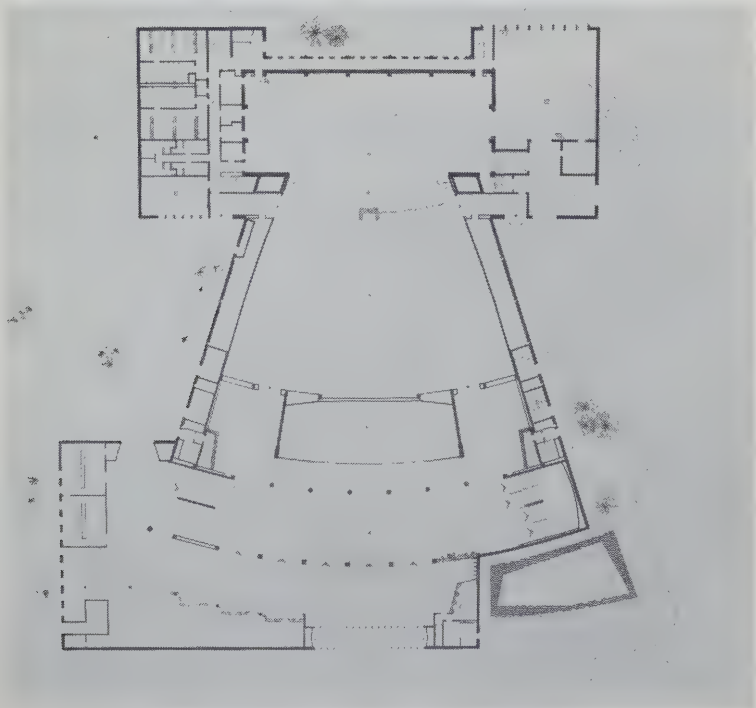
At the rear of the main lobby is the railed balcony looking down to the main social room which will seat 450 people. Adjacent to the social room are two smaller rooms whose capacity when combined with the social room is about 1,000 persons.

The club room which is opposite the main social room opens from the lower lobby promenade. Adjacent to the club room is the exhibition area — with its special picture hanging devices, cabinet work and lighting fixtures.

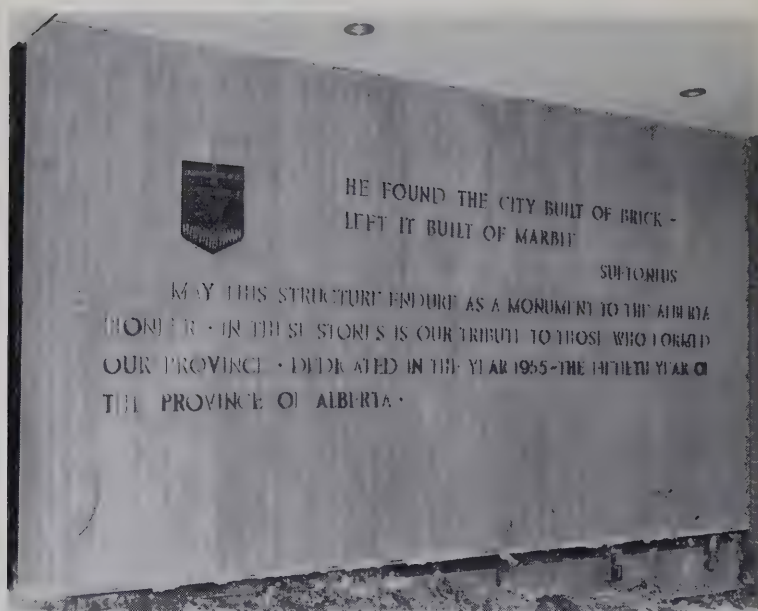
A very effective air conditioning and heating system is provided in the Auditorium. Six large multi-zone air conditioning units will supply air to the various zones, keeping it humidified, warmed, cleaned and re-circulated.

The stage and house lighting are operated by means of a complex electronic console. Lighting fixtures in the entire building consist mainly of recessed spotlights. For added beauty specially designed brass chandeliers are installed at the main lobby and the upper promenades.

The Edmonton site is 13 acres. The Calgary site is 26 acres. The overall building area of each building is 1.5 acres. Parking in Edmonton is provided for 800 cars and in Calgary for 1,000 cars.



Main Floor Plan, Jubilee Auditorium



Dedication Plaque, Jubilee Auditorium



Main Entrance, Jubilee Auditorium





Foyer, Jubilee Auditorium



Main Hall, Jubilee Auditorium

## EDMONTON

Major construction for the Department of Public Works was undertaken in the Edmonton area during this year.

The Poliomyelitis and Pediatrics Addition to the University of Alberta Hospital neared completion during this year. In the early Spring several of the Departments were occupied. Completion is expected in mid-Summer. This building is a steel framed, six storey addition. It has accommodation for 260 patients for treatment and nursing care. Improved administrative and staff facilities are contained herein along with a new staff cafeteria.

The work on the addition to the Nurses' Residence of the University of Alberta Hospital continued at a rapid pace and completion is expected in time for the Fall class of students. This addition includes accommodation for an additional 100 student nurses as well as increased teaching facilities, including lecture rooms, laboratories and demonstration rooms.

The School for the Deaf was also completed this year. This building is one of the major developments in Western Canada for handicapped children. This beautiful building located in South Edmonton is a one storey, concrete and masonry structure. The one storey type of design also provides fire safety for the students. It is fully equipped with the latest of teaching equipment for such students. Dormitory accommodation is also provided for students whose homes are in rural areas throughout the Province.

Work was also started on a new Administration Building for the University of Alberta. This building, which is located at the north end of 114th Street, will become the focal point for all students on the Campus and will house the Post Office and book store as well as the office of the President and the administrative staff. The building, which is of a monumental nature, is of brick and stone exterior and harmonizes with surrounding buildings on the Campus. It is a three storey structure of surfaced concrete, and measures 170' x 70'. It is expected to be completed in the Summer of 1957.

One of the major forms of unseen construction was the erection of a new high pressure steam line on the University Campus. This will provide for improved services to the Provincial Auditorium, the Research Council Building, the University of Alberta Hospital and the Aberhart Memorial Hospital groups.

Construction was started on the Biological Science Addition to the Agricultural Building. This building, which matches the present building in design, is of concrete frame and brick veneer. It is a four storey structure with full basement and measures 220' x 75'. It will contain laboratory facilities and lecture theatres for the Faculties of Agriculture, Biology and Geology.

Further construction at the University of Alberta includes the addition of two greenhouses to the Agricultural Faculties Headhouse which was completed the previous year.

Considerable work was done in the area of the Provincial Legislative Buildings. Improvements were made to roads, with further curbing and road surfacing being carried out. Extensive



work was done to the parking lot at the Highways Building. The Maintenance Department offices and carpenter shop, were consolidated into one building.

Redecoration of the main rotunda of the Legislative Building was commenced on December 7, 1956, and completed on February 6, 1957. Prior to this time the whole area was painted flat white, which tended to destroy the effectiveness of the fine detail of moulding, bas relief, column capitals, etc. The basic colours for the scheme developed by the Architectural Office, were cobbler brown, thistle green and cabana red, with greens, golds and platinum greys for contrasts.

The Northern Alberta Jubilee Auditorium was completed this year. This building is situated on 87th Avenue, facing North, in the University Area at Edmonton. A full description of the Auditorium is given in the preceding pages.

### **FORT SASKATCHEWAN**

The location of the Provincial Gaol saw a considerable amount of work done on improving service facilities including the construction of a water supply and treatment system. Three additional staff houses were also constructed in this area.

### **GRANDE PRAIRIE**

1956-57 saw the completion of the Court House at Grande Prairie. This fine brick building will fill a need for the administration of justice in this growing community. It contains, along with the main court room, a Magistrates' Court and offices, etc., with all necessary administrative services. This building is identical to the Court House recently built at Peace River, which is described more fully.

### **HANNA**

Construction was started on a Provincial Building at Hanna. This building is of steel frame and masonry construction. It is a two storey building with full basement and is of modern design. The main elevation is of a brighter coloured glass curtain wall construction and will be a pleasing addition to the community. Accommodation is provided for the Provincial Treasury Branch and Government Liquor Store. On the upper floor, office space is provided for the Department of Municipal Affairs, Highways, Agriculture and Department of Lands & Forests.

### **KEITH**

The Baker Memorial Sanatorium saw further work done on roads and landscaping to generally improve the appearance of this beautiful site. Extensive electrical work was carried out here to improve electrical services.

### **LETHBRIDGE**

At the Provincial Gaol, Lethbridge, considerable work was done on maintenance and construction, including a new garage and workshop, roads, landscaping and an electrical power change over.

### **OLIVER**

Major construction at the Oliver Institute was completed in the previous year. This year considerable work was done on improving roadways, walks and landscaping as well as installing new street lighting.

### **OLDS**

The Provincial Agricultural School at Olds was converted to gas heating with the installation of gas at this community.

### **PEACE RIVER**

The Court House at Peace River was completed this year. This building is a steel framed structure, "L" shaped, with basement, main and second floors. It contains reinforced concrete basement walls and fins between the windows to front elevation, with concrete floors. The main and second floors, together with the roof, are supported on open span joists. All interior walls are of lightweight concrete block, and exterior walls are constructed of lightweight concrete block, back-up, with face brick veneer; spandrels are of precast terazzo.

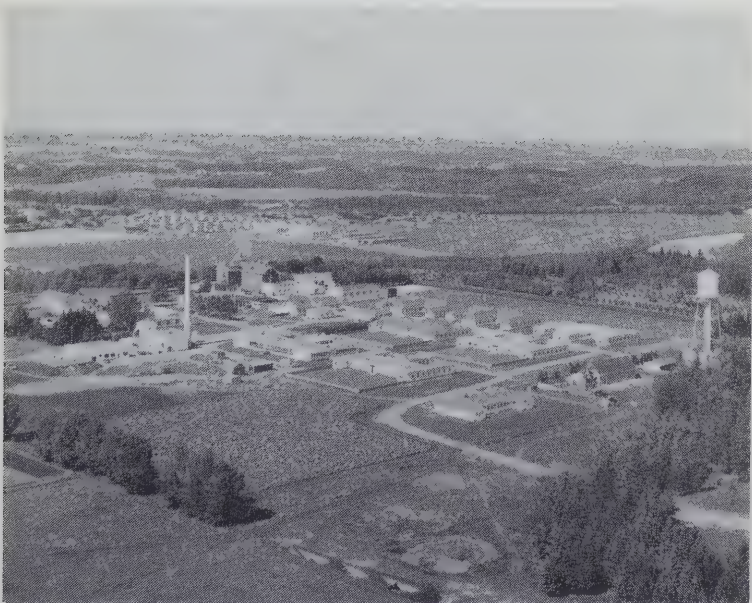
Steam heating is supplied throughout the building, with fin convectors as required in each room. The air conditioning unit is located in the boiler room and each room is air conditioned by means of air diffusers located in the ceiling. All rooms are illuminated with recessed continuous light fixtures, the number and length according to the requirements of each particular room.

The building will function as the District Court House, to accommodate the Court Room, Magistrates' Court, Offices, etc., with all necessary administrative services as follows: In the basement there is located the Magistrates' bench, witness boxes, and desks for solicitors' clerks. In the public space, seating is provided for 54 persons. The main floor accommodates the administrative offices, consisting of a General Office, Sheriff's Office, Crown Prosecutor's Office, Court Reporter's Office, Lawyers' Lounge with bathroom, public cloakroom and washrooms. The Main Court Room is located on the second floor, the accommodation consisting of the Judges' Bench, witness boxes, jury box, prisoner's dock, desks for lawyers, clerks, etc. Public space seating is provided for 100 persons.

### PROVINCIAL TRAINING SCHOOL, RED DEER

The Red Deer area saw a considerable amount of construction during this year. Construction was started on a new Infirmary Ward at the Provincial Mental Institute. This building is a frame and stucco structure with partial basement. The building is in the form of an "E" with two wards for patient care. The centre contains service facilities and day rooms for general activities. A roofed exterior recreation and exercise area has also been provided for 110 patients.

A new Clinical building was also started this year. This is also of frame and stucco structure over a full concrete basement. It is a single storey building, and was designed to accommodate the clinical and diagnostic services for the Provincial Training School.



Provincial Training School, Red Deer



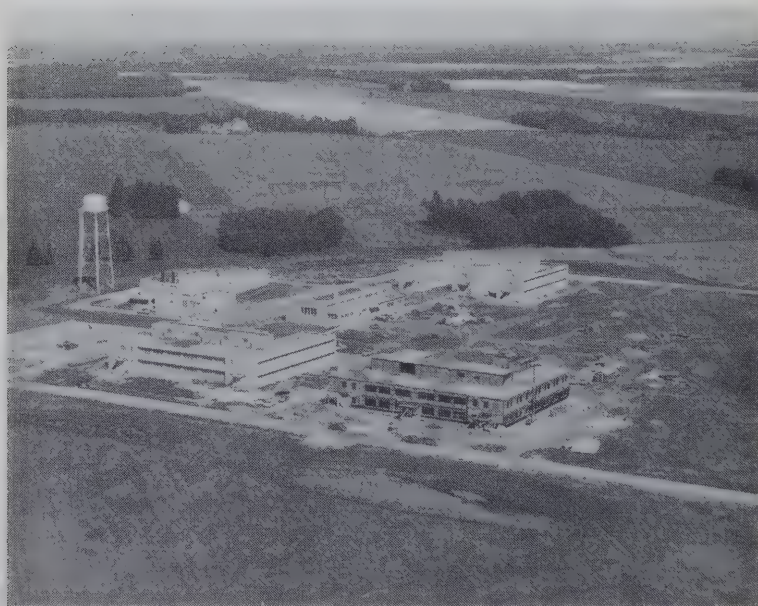
### **DEERHOME INSTITUTION, RED DEER**

Construction continued at this Institute. The Services Building which is a steel frame and masonry building and houses the heating plant, laundry and maintenance shops, was completed.

Further construction was also commenced on the Kitchen Services Building. This building is of similar construction. From this building meals will be distributed to the various dispersed wards. This building also contains a staff cafeteria.

The first and second dormitories were completed this year, with construction started on a third dormitory. These buildings are two-storey steel frame and masonry structures and have accommodation for approximately 150 beds each. Full ward accommodation is provided as well as adequate day rooms and dining room facilities.

Work was also done on surface sidewalks, curbs, roadways, etc., to tie these buildings together.

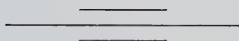


Deerhome Institution, Red Deer

### MISCELLANEOUS

This Department also did considerable work for various Municipal Hospital Districts in the Province. Additions were designed and construction started on additions to the Olds and Tofield Municipal Hospitals. Plans were also prepared for new hospitals to be located in the towns of Cardston and Bassano.

The Department has also done a considerable amount of work for the Alberta Government Telephones Department. Construction was completed on buildings at Coaldale, Provost and Leduc as well as the District Office in Edmonton. Construction was started on a new Telephone Exchange at Wetaskiwin and the Toll Building with micro wave tower located in Calgary.



## **MECHANICAL BRANCH**

This report deals generally with the operation and maintenance of nine Government High Pressure Boiler and Power Plants and the supply and maintenance of utility services at these larger Provincial Institutions. The following statistics show a nominal increase over the previous year's operation, a reflection of continued growth of those Institutions serviced by this Branch and the addition of a further power plant, namely, that of the Deerhome Institute.

## **LEGISLATIVE BUILDINGS, EDMONTON**

The installation of additional distribution panels and other electrical switchboard work commenced last year has been completed. A steam pressure reducing valve installation has been made to serve the Alberta Government Telephones and Highways Building heating line during normal and any unscheduled outage of the 1000 KVA engine-generator unit of the plant.

Monies have been provided for the purchase in the forthcoming year of a second 1000 KVA generating unit as planned for this plant.

## **PROVINCIAL INSTITUTE OF TECHNOLOGY AND ART CALGARY**

Installation of the new 30,000 lbs. per hour steam boiler and auxiliaries purchased last year is nearing completion. All will be ready for early trial run and are scheduled for full operation in late Fall. The Jubilee Auditorium building on the grounds is nearing completion and other large buildings are scheduled for construction. Monies have been provided in our Capital Appropriations of the forthcoming year for purchase of a 750 KVA generating unit for this plant.

## **PROVINCIAL MENTAL HOSPITAL, PONOKA**

Work requirement of our staff at this Institution for the past year has been that of regular operational and maintenance duties. This, however, is one of our larger plants and utility services of the Institution are rather extensive. Hot water requirement for the year was 18,500,000 gallons or over 50,000 gallons per day. Total sewage flow to the treatment plant was 63,000,000 gallons or 173,000 gallons per day. Monies have been allocated to provide additional hot water storage and heating equipment at the power plant and a replacement air blower and sludge pump at the sewage treatment plant. Monies are again provided for removal of the old B. & W. boilers and installation of the 30,000 lbs. per hour boiler purchased and now delivered to the plant.

Funds are also provided for reconstruction of foundation for the Skinner Unaflo engine-generator units to permit getting these engines back into useful service.



### **PROVINCIAL GAOL, FORT SASKATCHEWAN**

Like last year, no capital work jobs were in progress at this plant. Our staff is carrying on their regular operational and maintenance duties.

### **PROVINCIAL GAOL, LETHBRIDGE**

Our required building extension to the power house for pump room and A.C. switchboard installation has been completed by the Buildings Branch. A pipe and other storage shed has also been constructed adjacent to the power house for our requirement.

The 100 KVA Belliss & Morcom engine-alternator set purchased last year has been installed, connected to the new switchboard and is now in operation.

Removal of the second old D.C. engine-generator and preparation of foundation for the 156 KVA Belliss & Morcom A.C. unit is progressing. Installation will be completed early in the new fiscal year.

Installation of the new water tower service pump has been completed and change-over effected from partial to complete usage of City of Lethbridge water supply throughout all gaol buildings. Lake water supply is still available for lawn watering service and emergency fire fighting equipment.

### **PROVINCIAL MENTAL INSTITUTE, OLIVER**

Materials were purchased and delivered to plant last year for the repair and partial rebuilding of the old brick battery setting of No. 1 and 2 B. & W. boilers. This project was started in late Spring after Winter run of the boilers and satisfactorily completed without delay.

Replacement settling chamber cones and draft tubes for No. 1 and 2 Aerator-Clarifier units of the sewage treatment plant have been purchased and delivered to site. Installation will be carried out in late Spring of the new year.

All insulation of renovated steam lines and other requirement as was provided for in Capital Appropriations, has been satisfactorily completed.

### **BAKER MEMORIAL SANATORIUM, CALGARY**

Construction is continuing on the new incinerator and considerable progress is noted. We anticipate the project to be carried to completion without delay and trust that a start can be made early in the new year on the boiler room addition and foundation required. Monies have again been provided in our Capital Appropriations for 1957-58 for completion of above projects and installation of the 350 h.p. boiler on site.

The required new storage type water heater and accessory equipment has been purchased and installed. Further monies have been provided in next year's appropriations for a second new heater and controls. Hot water supply for the Institution will then be adequate.

### **DEERHOME INSTITUTE, RED DEER**

The power plant section of the Services Building at this institution has main floor at ground level, is spacious and well lighted and houses two 15,000 lbs. per hour Foster Wheeler boilers operating at 125 lbs. per square inch working pressure, feed pumps, feed-water heater, hot water service heaters, water softeners and dealkalizers, transfer pumps, etc., a 400 KVA electrical power service and distribution switchboard and a 125 KVA diesel engine-generator unit. Ground area is available for extension of the plant when future boiler installation is required.

### **PROVINCIAL TRAINING SCHOOL, RED DEER**

New building construction programme is in progress at this Institution and further buildings are projected. A new mechanical maintenance workshop building has been constructed and the old power house and shop structure demolished.

Shop equipment items of lathe, drill press, grinders, etc., have been purchased and installed. The shop is now adequately equipped to handle the increasing demand of mechanical maintenance at this Institution.

Provision is made in appropriations of the forthcoming year for additional storage type water heaters, controls and installation.

Provision is also made in above appropriations for building addition to the power house and purchase and installation of a 25,000 lbs. per hour boiler.





# PROVINCIAL GOVERNMENT POWER PLANT STATISTICS

For Year Ended March 31, 1957

Location	FUEL		WATER		ELECTRICITY		STEAM OUTPUT			
	Coal (Tons)	Gas (cu. ft.)	Pumped from Local Sources (Imperial Gallons)	Purchased (Imperial Gallons)	Generated (Kilowatt Hours)	To Building Heating (Pounds)	To Other Plant Operation & Services Institutional Maintenance			
Parliament Buildings and Administration Buildings, Edmonton	---	212,824,000	-----	117,758,562	3,969,100	4,850,400	134,364,000	40,636,000	\$137,160,000	
Institute of Technology, Calgary	---	60,657,000	-----	7,252,000	37,525	730,400	38,135,000	6,730,000	51,860,000	
Provincial Mental Hospital, Ponoka	42	180,188,000	70,311,000	-----	-----	1,116,000	1,219,300	96,978,000	41,562,000	199,810,000
Provincial Gaol, Fort Saskatchewan	---	54,403,000	600,000	13,141,400	423,400	128,400	34,009,000	8,502,000	60,430,000	
Provincial Gaol, Lethbridge	---	45,158,000	4,154,187	35,339,414	288,065	45,600	26,582,000	6,645,000	59,540,000	
Provincial Mental Institute, Oliver	12	238,548,000	-----	71,102,500	2,645,500	-----	138,085,000	46,028,000	166,100,000	
Baker Memorial Sanatorium, Keith	---	74,342,000	21,168,500	-----	-----	525,260	52,380	44,719,000	14,906,000	87,160,000
Provincial Training School, Red Deer	---	83,954,000	-----	30,363,938	710,435	169,670	47,167,000	20,215,000	77,370,000	
Deerhome Institute, Red Deer	---	25,340,000	-----	500,000	-----	31,800	17,721,000	1,969,000	42,000,000	
54	975,414,000	96,233,687	275,457,814	9,715,235	7,227,950	577,760,000	187,193,000	\$881,480,000		
Total Coal Used	-----	-----	-----	-----	54 Tons	-----	-----	-----	-----	
Total Gas Used	-----	-----	-----	-----	975,414,000 Cubic Feet	-----	-----	-----	-----	
Total Water Used	-----	-----	-----	-----	371,691,501 Imperial Gallons	-----	-----	-----	-----	
Total Electricity Used	-----	-----	-----	-----	16,943,235 Kilowatt Hours	-----	-----	-----	-----	
Total Steam Generated	-----	-----	-----	-----	764,953,000 Pounds	-----	-----	-----	-----	



